



§ 87(2)(b)

Docket No.: 20781.004

1. I am the President of Crystaphase International, Inc. and its related corporate entities (hereinafter "Crystaphase"), and maintain an office at Crystaphase at 16945 Northchase Drive, Suite 1610, Houston, TX 77060-6029. I have been employed by Crystaphase since 1989 to the present as the President. I am the name inventor in the above-identified patent application and am familiar with the disclosure in the above-identified patent application.
2. I have worked in the petroleum refining and petrochemical industries for at least twenty-four years. I am familiar with ceramic filter units, catalysts, and recycling of these units.
3. I am a named inventor of the subject application and thus would be considered of above-ordinary skill in the art of ceramic filter units and associated methods. In my position of President, I have supervised numerous individuals and therefore am knowledgeable about the level of understanding of one with ordinary skill in the art in the field of ceramic filter units.
4. My educational experience includes undergraduate studies in Biology and Chemistry. I have performed numerous experiments on the subject matter of the above referenced patent

application. I am extremely familiar with terms in the industry and the understanding associated with those terms throughout the industry.

5. As discussed in my previous Declaration, I participated in an experiment in which comparative performance data was obtained for ceramic filter units comparing ceramic units in accordance with the present invention having combinations of elliptical and circular openings, along with flutes, to ceramic units in accordance with prior art units having combinations of circular openings and flutes. Five prior art ceramic units (Products A, B, C, D, and E) were compared to three ceramic units made in accordance with the present invention (Products F, G, and H, as shown in FIG. 4 of the present application).
6. As discussed in my previous Declaration, the maximum flow rate in a cell, among other parameters, was measured for all of the tested ceramic units. The maximum flow in a cell was determined by measuring the flow rates of each active cell and determining the highest flow rate of those cells. In this experiment, the lower the maximum flow rate, the better. The best performing ceramic unit tested was Product F with only a 4.46% maximum flow rate in any one cell. The best performing prior art ceramic unit was Product C with an 8.45% maximum flow rate in any one cell. The best embodiment of the present invention, Product F, performed approximately 47% better than the best performing prior art ceramic unit tested, Product C.
7. The attached Exhibits 1 and 2 are graphical depictions of the results of these flow rate tests for Product C and Product F, respectively. To the best of my knowledge and understanding, based upon experiments that I performed, a lower maximum flow rate was achieved, and thus lateral fluid distribution was improved, when using the ceramic units of Product F of the present invention compared with use of prior art ceramic units, as shown, for example, by the lack of red or yellow shading for the Product F graph as compared to the Product C graph. Product F performed the best consistently when compared with the consistently best performing prior art ceramic filter unit, Product C.
8. As can be seen from the attached Exhibits, advantageous properties are associated with the use of the central opening with elliptical openings. The advantageous properties resulting from the use of elliptical openings are unexpected.

9. I believe there is no motivation for one of ordinary skill in the field of ceramic filter units to utilize ceramic disc units containing a central circular opening and at least three elliptical openings in accordance with the present invention, at least without resorting to hindsight after viewing the present invention.

10. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Sec. 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the publication or any patent issued thereon.

Date

8/8/05

John N. Glover